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## ORIGINAL DEPARTMENT.

### Communications.

#### THE NEW PHILOSOPHY.

The Correlation and Conservation of Forces.—  
Modern Views of Dynamics.

A paper read before the Muskingum County Medical Society.

By Z. C. McELROY, M. D.,

Of Zanesville, Ohio.

(Continued from page 125.)

The use of the plural word forces, is for the sake of being better understood, a concession to the philosophy of the past; for the hitherto regarded forms of force or forces, are mutually convertible into each other. They are all resolvable into heat, and heat is resolvable into motion, and motion is traceable directly into the sun's rays, which is at last the fountain of all force.

Thus the philosophy of man arrives at last at an approximate understanding of the Mosaic account of the creation, which states in Genesis I: 2, that "the Spirit of God moved on the face of the waters." All forms of force are resolvable into motion, and motion was the essential act of creation.

Thus the immateriality of God, the Creator, the persistence of force, and the indestructibility of matter, form a *trinity* of truths underlying all moral, intellectual, and physical science. The persistence of force necessarily includes the *immortality of the soul*, a problem, which, until now, could not be demonstrated by human philosophy.

The existence of matter separate from force, is an unsolved problem. All modes of force are resolvable into motion. Of the opposing condition of rest, or *Statics*, the universe affords no example. All is motion, not an atom at rest.

It will be incumbent on all laborers in science hereafter, to show in regard to any phenomena, whence came the force; what effects it produced; and into what has it been merged. Scientific inquiries will be, not so much into cause and effect, as into facts and relations.

Objectors to the new philosophy of force are not wanting, because it has not been established.

It may, therefore, be well to state in what sense it has been established.

The views here attempted to be set forth, have been accepted by the leading minds of all nations, with remarkable unanimity; their discussion forms a prominent topic in scientific literature, while they occupy the thoughts and guide the investigations of the most philosophic inquirers. While science securely holds her new possessions as a fundamental principle, its various phases are by no means completely worked out. Not only has there been too little time for this, even if the views were far less important, but the questions started, lie at the foundation of all branches of science, and can only be fully elucidated as these advance in their development. It is not without its difficulties, which time, with its intellectual advancement, may be safely trusted to remove. But it simplifies so many problems, clears up so many obscurities, opens so extended a range of new investigations, and contrasts so strongly with the complexities and incongruities of the older doctrines which are displaced, as to leave little liberty of choice between the opposing theories. Not only do the reception of these views mark a signal epoch in the progress of science, but from their comprehensive bearings, and the luminous glimpses which they open into the most elevated regions of speculative inquiry, they have a profound interest for many thinkers, who give little attention to the specialties of exact science.

"We might be certain," says Mr. HERBERT SPENCER, who is a collaborator of COMTE in his system of Positive Philosophy, and whose views in psychological science are not here indorsed, "that there must exist some principle, which, as being the basis of science, cannot be proved by science. All reasoned out conclusions must rest on some postulate. We cannot go on merging derivative truths into these wider and wider truths from which they are derived, without at last reaching a widest truth, which can be merged into no other. And whoever contemplates the relation in which it stands to the truths of science in general, will see that this truth, transcending all others, is the persistence of force."

Thus the great law of the correlation and con-

servation of force, characterised by Farraday, as the highest in physical science which our capacities permit us to perceive, has a far more extended sway; it might well have been proclaimed the highest law of all science—the most far reaching principle which adventuring reason has discovered in the universe. Its stupendous reach spans all orders of existence. Not only does it govern the movements of the heavenly bodies, but it presides over the genesis of the constellations; not only does it control those radiant floods of power which fill the eternal spaces, bathing, warming, illuminating, and vivifying our planet, but it rules the actions and relations of man, and regulates the march of terrestrial affairs.

Nor is its dominion limited to physical phenomena; it prevails equally in the world of mind, controlling all the faculties of thought and feeling. The star-suns of the remoter galaxies dart their radiance across the universe, and although the distances are so profound that hundreds of centuries may have been required to traverse them, the impulse of force enters the eye, and impressing an atomic change upon the nerve, gives origin to the sense of sight; star and nerve tissue are parts of the same system!—stellar and nervous force are correlated. And more; sensation awakens thought and kindles emotion, so that this wondrous dynamic chain binds into living unity the realms of matter and mind through measureless amplitudes of space and time.

And if these high realities are but the faint and fitful glimpses which science has obtained in the dim dawn of discovery, what must be the glories of the coming day? If indeed they are but pebbles gathered from the shores of the great ocean of truth, what are the mysteries still hidden in the mighty unexplored? And how far transcending all thought, that unknown and infinite Cause of all, to which the human spirit turns evermore in solemn and mysterious worship.

In the study of nature, two elements come into play which belong respectively to the world of thought, and world of sense. We observe a fact and seek to refer it to its laws. We apprehend the law, and seek to make it good in fact. The one is theory, the other experiment, which, when applied to the ordinary purposes of life, become practical science. The achievements of heat through the steam engine, have forced with augmented emphasis, the question on thinking minds, "What is this agent by which we can supercede the force of winds and rivers, of horses and men? Here is a fact, what are its laws? Heat can produce mechanical force, and mechanical force can produce heat. Some

quality, therefore, must unite this agent with the ordinary forms of mechanical power! This relationship established, the generalising intellect could pass at once to the other energies of the universe, and it now perceives the principle which unites them all. It is the persistence of force.

All modes of force being traceable ultimately to the sun's rays, the relationship of the sun to life, which more immediately concerns us as physicians, cannot prove otherwise than interesting. The length the present paper has already attained, forbids me to unfold to you the modern views of celestial dynamics, grand and marvellous as they are. The earth's atmosphere contains carbonic acid, and the earth's surface bears living plants. The former, or carbonic acid, is the nutriment of the latter, or plants. The plant apparently seizes the combined oxygen and carbon, tears them asunder, storing up the carbon and letting the oxygen go free. By no special force different in quality from other forces, do plants exercise this power. The real magician here is the sun! Without the sun the reduction cannot take place, and an amount of sunlight is consumed precisely equivalent to the molecular work accomplished. Thus the trees are formed, thus the meadows grow, and thus the flowers bloom! Let the solar rays fall on a surface of sand, the sand is heated, but finally radiates away as much as it receives; let the same rays fall upon a forest, the quantity of heat given back is less than that received, for the energy of a portion of the sun-beams is invested in the building of trees—every tree, plant, and flower, grows and flourishes by the grace and bounty of the sun!

Vegetable life is the source, mediate or immediate, of all animal life. In the animal body, vegetable substances are again brought into contact with their beloved oxygen, and they burn within us as a fire burns in a grate. This is the source of all animal power, and the forces in play are the same in kind as those which operate in inorganic nature. In the plant, the atoms are separated—in the animal they are recombined. Leaving out of account the eruptions of volcanoes, and the ebb and flow of the tides, every mechanical action on the earth's surface, every manifestation of power, organic, inorganic, vital and physical, is produced by the sun. The sun's warmth keeps the sea liquid, and the atmosphere a gas; and all the storms which agitate both are blown by the mechanical force of the sun! He lifts the rivers and glaciers up to the mountains, and thus the cataract and avalanche shoot with an energy derived immediately from the sun. Thunder and lightning are, also, his transmuted strength.

Every fire that burns, and every flame that glows, dispenses light and heat which originally belonged to the sun.

During four recent years, the news of battle in our own land was unhappily familiar to us; but every shock and every charge was an application or misapplication of the mechanical force of the sun. His power blows the trumpet, urges the projectile, and bursts the bomb. And this is not poetry, but rigid mechanical truth. He rears the whole vegetable world, and through it the animal. He builds the forest and hews it down. The power which raised the tree and wields the axe being one and the same. The clover sprouts and blossoms, and the scythe of the mower swings by the operation of the same force. The sun comes to us as heat; he quits us as heat; and between his entrance and departure, the multiform powers of our globe appear. They are all special forms of solar power—the moulds in which his strength is temporarily poured in passing from its source to infinitude!

Presented rightly to the mind, the discoveries and generalizations of modern science constitute a poem more sublime than has ever yet been addressed to the intellect or imagination of man.

We may, as physicians, living in the early twilight of the discovery of this great doctrine of force, speculate only on the probable advantages to our profession, which are likely to flow from its future developments. Important changes in the views now entertained of the causation and essential nature of disease, and its remedial management, may be confidently predicted.

The cultivators of physiology, armed with the microscope and chemist's reagents, and guided by these views of force, must make many and important additions to their science. Pathology, too, must receive important additions—its facts classified, their value made out, and it placed among the sciences. It is scarcely entitled to that distinction in its present state.

But it is in hygienic, remedial, and therapeutic measures that we may look for the most important changes, and the most striking advancement.

Almost synonymous with the first paper of Dr. MAYER, on the forces of inorganic nature, in Germany, was the discovery of anæsthesia in our own country by WELLS. Here is an immense stride from the physical, toward the ideal. Before ether or chloroform, physical restraint was employed in surgery, and acute and agonizing pain from any cause. An insignificant quantity of chloroform, passed into the system as an invisible or ideal vapor, or force, transforms the living and

sensitive being into a state of insensibility more or less complete, to all external impressions whatsoever, as we have all so often witnessed and practiced.

In the treatment of nervous disorders, the practitioner of a century hence will probably be armed with ideal agents, competent to control them, as we now control a phlegmasia. As the great laws of force are better understood, many of the places we now tread in almost darkness, will be illuminated, and our somewhat empirical practice will be replaced by light, certainty, and confidence. As the ultimate source of all power or force is from the sun, or the sun's rays, the prediction is hazarded, that at some future period they will play a much more important part in therapeutics than they now do, with or without our knowledge. In confirmation of this, Dr. ELLSWORTH, of Hartford, Conn., reports in the MEDICAL AND SURGICAL REPORTER, Nov. 24, 1866, page 435, the successful employment of the sun's rays for the removal of nævi, moles, marks, etc., and this the discovery of a non-professional gentleman of that city. Up to this time all attempts to remove the deformity of nævus have been unsuccessful. That the sun's rays should be, is a legitimate deduction from the new philosophy of force. Further experiments will hardly fail to confirm this discovery, and lead to others of like or even greater importance. It is somewhat remarkable that anæsthesia, and the power of the sun's rays over nævi, etc., should both have had their origin in the same city, and by men outside the medical profession.

The open, or fresh air, is a recognized agent in modern therapeutics. May it not be possible after all, that it is the sun's rays, rather than the atmosphere, which is the real force we thus make use of in a round-about way, as a tonic agent? The mysterious influences of night, bad weather, storms, etc., now so plainly observed and admitted by every practitioner, and felt by every human being, in health to some extent, but more strikingly in diseased conditions, can hardly fail of satisfactory explanations.

Patients are sometimes sent from ours to supposed more genial climates, and occasionally with apparent benefit. Is the thought impossible or improbable, that it is the more direct rays of the sun that does good, rather than the milder or different climate? In warm climates the sun's rays are conserved in heat, but it cannot be heat simply, because art can imitate any climate, judged by the thermometric scale only, and we all know that the artificial climate is unattended by the same results as the natural. There is



something more potent than heat, and the probabilities favor the supposition that it is the sun's rays. And it must be borne in mind that they embody light and heat; and rays of colored and colorless heat, blended into the bright sunbeams visible to our senses. It is among the demonstrations of TYNDALL, that the dark, or non-luminous rays of heat, outside of the colored spectrum, have a higher heating power than the colored. It is also a demonstration that some things transmit the light of the sun, but stop the heat rays. These are curious facts, and some day may be found to have a therapeutic value.

New forms of force may, and doubtless will be identified by future investigators, differing from those now recognized.

When the human mind has fully accepted, as it inevitably must, the demonstrations of the correlation and conservation of force, new discoveries based on it will speedily follow. Life is but one of the manifestations of force, and some of its mysteries will be illuminated and made plain by future discoveries. The agents we now use are forms of force, conserved in their therapeutic effects on the system. Is it not probable that the study of force, in the light of the great law of persistence, may unfold more plainly their modus operandi?

As one of the uniformities in nature, may not the mode of operation of some of our more potential remedies be analogous to that of electromagnetism in the telegraph? The soluble alkalis, subcutaneously administered, bear a most striking resemblance to telegraphy in the promptness of their effects on the human system. Is it not possible that most of our remedial agents act by impressing atomic changes on the living tissue, precisely as in the unorganized telegraph? Do not the effects following their administration by the stomach, hypodermically and endermically, tend strongly to sustain such a view? Slowest endermically, with greater promptness by the stomach, and almost instantaneously when thrown into contact with the delicate termini of the sensitive nerves, so largely spread out in and beneath the cutaneous surface? Certainly such a view greatly aids in comprehending the possible modus operandi of medicines. Signals have been transmitted through the Atlantic cable by a battery composed of a copper gun-cap, and a drop of acidulated water. Is not this the strychnia, atropia, morphia, or chloroform of telegraphy? May not the effects of heat, in its potential form of electricity, be better understood by supposing the thunderbolt to impress its atomic changes so widely and suddenly as to arrest life

instantaneously? The fact is so; the explanation, at least, plausible. So in burns, the constitutional disturbances are often out of all proportion to the local injury. A fatal termination is probably due to extensive atomic changes invisible to the eye of the pathologist, even aided by powerful optical instruments. So of vesicatories, and other forms of counter-irritation. A more satisfactory solution of their modus operandi is obtained, viewed in this light, than by any former hypothesis. So of any other phenomena connected with the living organism, in health and disease, studied in the light of the new philosophy of force, new and extensive channels of thought are opened up of the most interesting character, far too wide for the limits of a paper.

But after all, these are only speculations, awaiting the only ordeal by which they can become established facts,—demonstration. Not likely to be idle vagaries or imaginings, because in accordance with the great law by which all forms of force are governed.

The intellectual status of most practitioners of our science and art, of any considerable advance in life, is probably fixed. But those who are to come after them, educated in the light of the new law of force, will study phenomena under very different circumstances, and judgments will depend more on recognized facts, than the acuteness of individual perception or experience.

[It is proper to state, that no claim to entire originality in the wording of the foregoing paper is made by the writer. Some of it is in the very language of others, and as it could neither be abridged or simplified, was adopted, more or less entire, quotation marks being omitted, because of alterations and interpolations constantly occurring. There is, however, a large amount of strictly original matter in the paper, and the concluding part wholly so. The matter was gathered from Prof. YOUNG'S republication of the *Essays of GROVE, TYNDALL, JOULE, FARADAY, HELMHOLTZ*, etc.; Prof. SAMUEL JACKSON'S *Essay on Force*, in *LEHMAN'S Chemistry*; *N. Y. Tribune*, *N. W. Christian Advocate*, TYNDALL'S "Heat, considered as a Mode of Motion," etc., etc.]

#### Croup Treated by Sulphur.

The *Brit. Med. Journ.*, quoting from the *Gaz. Méd. de Paris*, states that M. LAGANTERIE, from observing the effect of sulphur on the oidium of vines, has been led to administer it in several cases of croup. He mixes a teaspoonful in a glass of water, and gives the mixture in teaspoonful doses every hour; the effect he describes as wonderful. The disease is, in effect, cured in two days, the only symptom remaining being a cough, arising from the presence of loose pieces of false membrane in the trachea. Mr. L., says, that he has followed this plan in seven cases, all being severe, especially the last, in which the child was cyanotic, with protruded rolling eyes, and noisy respiration.

**PHYSIOLOGICAL AND PATHOLOGICAL  
RELATIONS OF THE TRUNKAL MUS-  
CLES, WITH THE THERAPEUTIC INDI-  
CATIONS INVOLVED.**

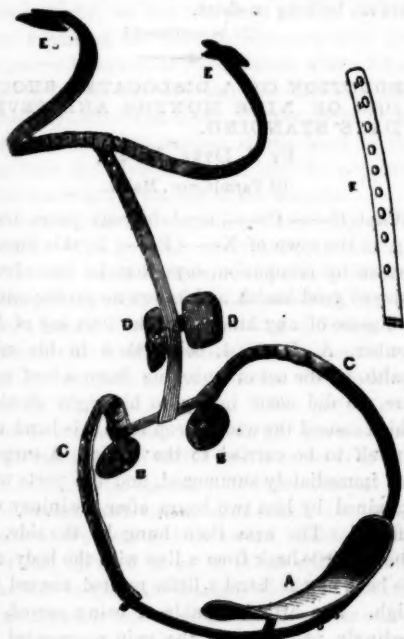
By E. P. BANNING, M. D.,

Of New York.

(Continued from page 87.)

**Of the Pregnancy Brace.**

In the early months of gestation, the ordinary abdominal and spinal brace, to which we have already so often alluded, is in every respect adapted to the exigency which calls for support. But in the advanced stage of the process, the antero-posterior proportions, as well as the vast and constantly increasing lateral expansion of the



**Pregnancy Brace.**

CC. Bow of mainspring rising above the cresta illi and sitting immovably on the pelvis.

BB. Plates supporting the gluteal muscles on either side of the sacrum.

DD. Aggressive supporting plates on either side of the dorso-lumbar line.

EE. Spring caps, resting on the head of each humerus.

A. Front abdominal plate; being so long as to support chiefly at the inguinal regions, and having a deep depression in the centre of its upper edge to allow the abdominal protuberance to jut over.

F. Extension slide, (which may be applied or removed for extending the front dimensions to any requisite extent.

The combined action of the whole, is, support of the pregnant woman's aching back and drooping shoulders. To brace weak hips together, and to greatly support the abdominal contents from dragging unduly upon the woman, and from compressing the bladder, rectum, hemorrhoidal veins, sacral nerves, and lymphatics.

abdomen, demand a brace, which, by its peculiar proportions, and extensibility, is precisely adapted to the patient's varying state. This instrument I denominate the pregnancy brace. It differs from the ordinary abdominal and spinal brace in but two essential particulars, except that its form is changed to that of pregnancy. First; its abdominal plate is much longer at its upper edge, in order to reach well around to the right and left inguinal regions, so as to support more from those parts than at the central portion of the abdomen; and, at the centre or middle point of its upper edge, there is made a deep niche, or depression, which is designed to allow the apex of the abdominal prominence to jut over in freedom. Second; to accommodate the steadily increasing abdominal expansion, a slide is constructed and screwed on to the front bar in such a manner, as to admit of the instrument's extension, *ad libitum* without disarranging its perfect bearing at any part.

When the whole is properly adjusted, the aching back is comfortably supported. The superior trunk is poised behind the spinal axis, thereby taking trunkal weight from the pelvis. The chest and waist are expanded, and room correspondingly made for the facillitous elevation of the whole abdominal freights away from the pelvis. By the same means, the pelvis is thrown into that normal oblique bearing to the trunk, which causes the pubes and inferior abdominal muscles, to protect the pelvic, viscera, and vessels, from direct pressure; also, the abdominal plate (though shallow, and acting only at the abdominal base,) is, by its upward action, on an elliptic spring, efficient; not crowding up the foetus, but gently protecting against its undue descent upon pelvic soft parts, or upon the pelvic bones, in such a manner as is liable to be injurious to itself.

And now, although it is evident that mechanical support cannot always be efficient except in connection with remedies, I submit, whether it is not apparent, that, in judicious hands, it may not be recognized as a power, in the premises, which should no longer be ignored.

**Of Mechanical Support in the Puerperal State.**

Having considered the physical influences at work in the several stages of gestation, and also the adaptedness of mechanical support to mitigate many of the casualties incident to that state, we now propose to consider the physical conditions of the puerperal state, and the adaptedness of mechanical support to relieve and to prevent the casualties contingent to that condition.

Immediately on delivery, the woman passes from a state of extreme muscular extension and

abdominal fulness, to one of great muscular flabbiness and abdominal emptiness; and, as in the premises, the muscles are utterly inadequate to grasp and support the lineal viscera in the ascendant, the latter are left to drag upon the diaphragm and mediastinum; to fall and press upon the exhausted and flabby uterine ligaments, vagina and perineum, and to float in abdominal vacuo, according to the varying positions of the body.

This condition, might be termed a centrifugal or scattered condition of the viscera, in opposition to their normal compacted or centripetal state, which has been elucidated in previous papers, and, although this has been brought about in a natural way, it is so discordant with the manifest law of *trunkal unity*, as to prevent the woman's regaining strength and activity in the ratio of its degree. Furthermore, should the woman's health and general strength tempt her to rise and attempt her domestic duties, before this unsupported, rolling and dragging condition is removed, she is ever liable to induce, not only inconvenience and suffering, but, ultimately, serious functional and organic derangements of the pelvic abdominal and pelvic organs. Indeed, the writer has the best of reasons for asserting, that many of the temporary and permanent evils of child-bearing, are but the legitimate sequelæ of not successfully girding up the "broken back," and the "swagging abdominal viscera," in the ascendant, before the woman has been permitted to move about or even to rise momentarily. The same reason may also often be assigned for the "long confinements," "slow gettings up," and the permanent, but indefinite "delicate condition" of vast numbers of child-bearing women.

Nor need this statement be deemed visionary, since in the early puerperal state, *gravity* seems to be the only physical force which is in full activity; the perineum, vulva, vagina, uterine ligaments, and abdominal muscles, as to contractility, being a physical nullity; a mere mechanical combination without a power. Then, add the fact, that the viscera are a lengthened chain, moored to the spine and diaphragm in such a manner, as to produce *tension* from the diaphragm, and *pressure* upon all the inter pelvic tissues, on each assumption of the vertical position.

Again, we submit, that in a large number of cases, (all things being equal) this antipodian change, from fulness to emptiness, from muscular extension to muscular flabbiness, and from visceral support, to respective visceral dependency and pressure, is the principal reason why the patient (after a little rest,) may not go about, with

no more injury resulting, than after a corresponding physical effort under other circumstances. Indeed, many Indian, Irish, and German women so do, and thereby, explain why it is, that such women, usually, after their first labor, exchange their trim and shapely appearance, for a "poddy," and "sloppy" form. In a word, parturition does not necessarily make a woman "sick;" but *delivery* empties and collapses, and *labor* exhausts her; and, until nature and art have recuperated all the inter-pelvic tissues, and retensed the diaphragm by supporting the lineal viscera in the ascendant, she must remain *liable* to immediate or ultimate damage from resuming her active position, whether the time after labor, when she does so, be long or short.

[To be continued.]

#### REDUCTION OF A DISLOCATED SHOULDER OF NINE MONTHS AND SEVEN DAYS' STANDING.

By P. DYER, M. D.,

Of Farmington, Maine.

Capt. G—C—, aged fifty-six years, residing in the town of N—P—, in this State, a farmer by occupation, says that he has always enjoyed good health, and knows no predisposition to disease of any kind. On the 10th day of November, A. D. 1864, being then in his usual health, in the act of knocking down a beef creature, he did some injury to his right shoulder which caused the axe to drop from his hand and himself to be carried to the house. A surgeon was immediately summoned, and the parts were examined by him two hours after the injury was inflicted. The arm then hung by the side, the elbow a little back from a line with the body, and the back of the hand a little rotated toward the thigh. The arm incapable of being moved, exceedingly painful, and the pain augmented extremely upon the least motion, especially upon any attempt to move the arm forward. The surgeon regarded it as a case of sprain or strain to the muscles, and prescribed hot fomentations, administered an anodyne, and left the patient.

Next morning the shoulder and arm were terribly swollen and painful, and the arm incapable of any motion without intense agony. This state of things continued until the following June without intermission or change, when he again called upon his surgeon, to see if something could not be done for his relief. After a protracted examination, his surgeon decided that the bones were all in situ, and prescribed repeated blistering as a means of reducing chronic inflammation. This plan was adopted and followed until *eight*

blisters had been applied, but with no marked effect.

On the 16th day of August, 1865, the patient fell under my notice. I found the shoulder a good deal swollen, the swelling extending down the arm half-way or more to the elbow-joint. The arm was incapable of being moved forward, and but slightly in other directions, without causing great pain. Upon searching for the head of the humerus, it was found completely out of the glenoid cavity, and resting under the coracoid process of the scapula. I made no attempt to remove it at that time, but desired the patient to call at my office the next morning at 9 o'clock, when I would consider his case further.

Accordingly, on the morning of the 17th, I again examined the case, in company with Dr. LAFAYETTE PERKINS, of Farmington, whom I had called in for the purpose, and who fully coincided in the diagnosis I had made. There could be no mistake about the absence of the head of the bone from the glenoid cavity, and its presence under the coracoid process of the scapula.

The next question was what, if anything, could be done? The general rule relating to chronic dislocations was well known, and all the dangers attending their reduction well appreciated. Nevertheless, here was a case where the suffering was intolerable, and relief of some kind seemed due from the surgeon to the patient. We resolved upon an effort at reduction. The patient was seated in a convenient chair for the purpose, and an assistant placed at his left side, so as to support and counter-extend. I then grasped his right forearm and elbow, upon which I made extension downward and backward, rotating backward and forward so as to break up any adhesions that might have formed, while Dr. PERKINS manipulated at the shoulder-joint. After one or two efforts in this direction, feeling the adhesions give way, I was enabled to carry the arm forward, rotating it outward, until I carried the hand completely over the left shoulder. The head of the bone had returned to the glenoid cavity, and the patient expressed himself as entirely relieved from all pain.

The arm was dressed by a simple suspensory bandage, so arranged as to support the arm and to confine it in place, and the patient was requested to report himself again in two weeks.

I saw the patient again in two weeks, and found the swelling considerably diminished and the pain almost entirely relieved. The arm hung in a natural position by his side and everything bespoke a favorable result.

The arm continued to improve, the swelling

gradually subsiding until the following December. The patient recovered the partial use of the limb, so that in December, four months after reduction, he worked two days at pitching straw from a threshing-machine, though of course not with the facility of a well man.

Immediately after this I was called to see him, when I found the shoulder and arm down to the elbow very much swollen and exceedingly painful, with a good deal of constitutional disturbance, pulse high, tongue dry and coated, and all the evidences of high inflammatory disease.

Constitutional and local treatment was made use of and persevered in, but the symptoms did not abate, and in February I expressed to the patient my fears as to the result. The swelling continued to augment, and by the month of May there could no longer be doubt that it had degenerated into malignant disease.

On the 26th day of Sept., 1866, he died. Nine hours after death I made a post-mortem, assisted by Dr. BENNETT, of New Portland, and Dr. VAUGHAN, of Farmington, when we found the following pathological condition of the parts.

The arm was very much enlarged, measuring about twenty-five inches around the axilla and acromion, and about twenty inches in circumference at the insertion of the deltoid muscle. The articulating surface of the head of the humerus and about three inches of its lower end were found, and were apparently in a healthy condition. Occupying the place of the shaft of the humerus was a mass of disorganized comminuted bone and muscle without continuity, and wanting in the characteristics of *fungus hæmatodes*, which was supposed to be its diagnostic character before death. The scapula, with the exception of the acromion and a small portion of the lower edge of that bone, were converted into the same kind of material and presented the same appearance. There was also a mass of like matter, two or three inches in diameter, occupying a place just beneath the coracoid process of the scapula and just where I found the head of the humerus the August previous. This mass communicated with the others at a point about where the deltoid inserts into the humerus.

About the malignant character of the disease no doubt could be entertained, but I have never seen any good description of it, and hence am not able to assign it a name.

*Query.* Was the disease the result of long-continued inflammation in the parts, or did it arise from constitutional causes existing prior to the dislocation? I am inclined to the opinion that the malignancy of this disease was not estab-



lished until long after the reduction of the dislocation, and that it was the result of long-continued inflammation degenerating the tissues, and at a time too when nature was not able to resist the attack, and the result, instead of suppurating, as is common in more acute inflammatory diseases, was as has been described above.

#### DOUBLE OVARIOTOMY.

**Polycystic Tumor of Immense Size.—Pedicles Severed with Ecraseur.—Recovery in Twenty-eight Days!**

BY THAD. S. UP DE GRAFF, M. D.,  
Of Elmira, N. Y.

Mrs. A. C. Leach, of West Dresden, N. Y., the subject of the following operation, is 50 years of age, of a nervo-sanguineous temperament, of remarkably good health up to the time of the appearance of the tumor, and the mother of three healthy and bright children, the eldest a girl of 16, and two boys of 12 and 14.

She first complained of a "bearing down" in March 1857, the symptoms being about the same as those accompanying prolapsus uteri. Soon after she discovered an enlargement in the right iliac region, accompanied with considerable pain in that locality and the right shoulder. She consulted a physician about this time, who informed her that she was suffering from "liver complaint," and directed his treatment with a view of relieving said difficulty. The treatment being of no avail, she consulted various other professional gentlemen, most of whom diagnosed hepatitis, for which she was treated up to April, 1863, during which time she had enlarged to the extent of a woman at the full period of pregnancy, and at times suffered from so much pain in the right iliac region as to render her bed-fast. About this time (April 1st, 1863) she visited Prof. MOORE, of Rochester, who at once diagnosed a tumor on the right ovary, and advised paracentesis with a view of relieving the distressing symptoms then present.

She returned home and continued to enlarge gradually up to March 10th, 1866, when the pain in the right side became unendurable, and resolving to follow the advice of Dr. MOORE, at once summoned Drs. OLLIVER and SMITH, of Penn Yan, N. Y., who accordingly performed the operation of tapping and succeeded in removing forty-three pounds of dark-colored fluid resembling new cider in color and consistence, but containing numerous oil globules, and upon standing over night deposited a sediment of fibrine which was quite ropy, adhering to a stick when thrust into it. The evacuation of the contents of

the tumor reduced the abdomen to its natural size.

Paracentesis so prostrated her that she was unable to rise in bed for two weeks, and four weeks had elapsed before she had gained sufficient strength to walk across the floor, and in less than six weeks she was larger than before tapping. After this time the abdomen enlarged very rapidly, she suffering much pain, which was now felt almost entirely in the left side, none remaining in the right as formerly. She could feel the outlines of a tumor in the left side, immediately below the last rib, which was very sensitive to the touch.

She was now visited by Drs. SMITH and SLOAN, of Penn Yan, who presented ovariectomy for her consideration, at the same time advising the operation, to which she eagerly assented.

I was accordingly summoned on October 1st. Found her in bed lying upon her right side, shoulders elevated, inspirations painful, with a sense of suffocation and considerable pain in the left iliac and lumbar regions. The distance about the person, on a line with the umbilicus was fifty-seven inches. From the inferior extremity of the ensiform cartilage to the pubes twenty-seven inches: thus forming an unnatural protuberance startling to look upon. In consequence of the tremendous distension and tensility of the parts, it was impossible to detect any points of adhesion or the character of the tumor, as to whether it was mono or polycystic; but from the circumstances of the tapping having reduced her to her natural size, I was led to diagnose the former.

I stated to her the dangers of ovariectomy, and having heard her express a determination to have the operation performed, at once proceeded to the preparatory treatment. Ordered

R. Tinct. ferri chlor., f. ʒij.  
Quiniae sulph., ʒi.  
Aque dist., f. ʒiv. M.

One teaspoonful to be taken three times a day. Directed that a cathartic should be given three days before the time of the operation. The following was administered:

R. Pulv. rhei, gr. j.  
Podophyllin, gr. iij. M.

in the form of a pill, which acted briskly, and after which the patient was allowed no solid food, but was sustained upon broths, beef-tea, gruels, etc. The evening before the operation a small dose of castor oil was given, which left the bowels perfectly free from accumulation. Ten days from the beginning of this treatment, accompanied by Dr. A. RICE, of this city, Drs. B. F.



WAGENSELLER, of Selin's Grove, Pa., METCALFE, of Owego, and AXTELL, of Troy, Pa., I repaired to the house of the patient, prepared to operate. We found Drs. SMITH, of Penn Yan, SLOAN, from the vicinity, POST, of Lodi, and several other medical gentlemen anxious to witness the operation.

The patient was sitting in an arm-chair, "feeling pretty comfortable," and chatting gaily with her friends, and expressing a determination to "get well." The room was placed at a temperature of 80°, and chloroform administered by Dr. AARON RICE, (on whose excellent management of the anæsthesia much of the success of the operation depends.) An incision was made from the umbilicus to within an inch of the pubes, the tumor presenting itself at the opening. I now inserted my hand between the tumor and the abdominal parietes, and at once came upon extensive adhesions seemingly throughout the entire extent of the tumor. These adhesions were very firm, requiring at some points all my strength to sever them. Copious hæmorrhage immediately ensued, and I was notified that the pulse was failing. Stimulants were administered by the attending physicians, while I at once proceeded to evacuate the cyst, as it was much too large to attempt to remove entire. A trocar was introduced and the fluid allowed to escape for the space of about ten minutes, when discovering that too much valuable time was thus being consumed, the canula was withdrawn and the puncture enlarged to an incision of about four inches, through which the contents of the tumor were discharged into a vessel held under the opening, while the hand was placed behind the tumor throwing it forward into the abdominal wound, thus preventing the escape of the fluid into the abdominal cavity. During this procedure the diaphragm was carefully supported by means of a bandage placed across the epigastric region, and pressure sustained by the assistance of two of the medical gentlemen present. Two other tumors, more firm and inelastic, now exhibited themselves, and upon manipulating them they were found to be firmly adherent to the inferior margin of the right lobe of the liver, to the diaphragm, stomach, and left kidney. I therefore enlarged the incision in the abdomen to about six inches above the umbilicus, making now an opening of some sixteen inches in extent. I now carefully broke up the adhesions to the liver, gall-bladder, stomach, diaphragm, intestines, and kidney, using nothing but the fingers. Finally the pedicle was reached on the right side, and was found to be quite short, but five inches in width. The *écraseur* was applied and the pedicle

severed, *not one drop of blood following the instrument.* Upon attempting to lift out the mass, still another pedicle was discovered upon the left side close to the uterus. This was severed in like manner, and the adhesions of still another tumor broken up from the uterus, bladder, and descending colon. The entire mass was now removed, when about one pint of coagulum was found in the pelvic cavity. This was removed with the hand and the parts carefully sponged. The pedicle upon the right side was now examined, but no hæmorrhage presented itself. From the left pedicle, however, one small vessel was bleeding freely, (at a point where the scissors had been used to sever a firm attachment to the uterus). This was ligated with a very delicate silken thread, cut close, and allowed to remain within the cavity.

No further hæmorrhage was found to exist all having ceased the moment the incision was enlarged and the parts exposed to the air. The cavity was again carefully sponged and the incision closed with eight silver-wire sutures passed through the peritoneum, and the same number of silken ones placed superficially. A four-tailed bandage was now applied, two of the ends being secured around the person, while the other two passed between the thighs and were pinned to the main bandage at the pubes, thus securing a snugly fitting and unyielding compress. The patient was now removed from the operating-table to the bed, and cloths moistened with hot water applied to the abdomen, while hot bricks were applied to the feet and about the body. McMunn's elixir of opium, 30 drops was then administered and the patient allowed to remain undisturbed.

The operation was completed in one hour, calculating from the time that the patient was fully under the influence of the anæsthesia until she was placed in bed.

The fluid removed weighed 54 pounds. The fibrinous portion of the tumor 18 pounds, making in all 72 pounds. Thus was successfully removed the largest—if we mistake not—ovarian tumor of which we have any record.

One hour after the operation, (one o'clock P.M.) the pulse was at 120, pretty full, and the patient expressed herself as feeling better than she had for two years before. At two o'clock had some nausea, the effects of the chloroform. Brandy and elixir of opium administered at intervals. I left my patient at five o'clock P.M., placing the after-treatment in the hands of Dr. SMITH, under whose excellent care she gradually improved, almost without an unfavorable symptom. The

doctor not having kept any notes, I am unable to give as full a report of the after-treatment, as I would like.

The catheter was used three times a day for about ten days, after which she voided urine without its assistance. On the 12th day the bowels moved spontaneously. About the 15th day she complained of considerable pain in the lumbar region, which was caused by an accumulation of hardened feces in the colon. Castor oil was given, together with an injection of one pint of warm water. This removed nearly two quarts of impacted feces of a very dark color and foetid smell, after which her appetite and strength rapidly improved.

Her diet consisted of beef-tea and brandy for the first week. Afterwards she had chicken-broth and baked potato, and, as her digestion improved, beefsteak and stewed chicken were added to her bill of fare.

The interesting features connected with this case are, that, notwithstanding the terrible laceration of the peritoneum, not a single symptom of peritonitis presented itself. The long incision through the peritoneum, which afforded easy manipulation, hastened the termination of the operation; and while it exposed the viscera, liver, and delicate peritoneum to the action of the atmosphere, still, no unfavorable symptoms resulted. Both ovaries being diseased, they, together with the broad ligaments, were excised close to the uterus, leaving that organ unsupported within the pelvic cavity, making it a matter of serious consideration with me, whether or not, I had better apply the *écorseur* to that likewise. Instead, however, I placed it in contact with the abraded surface of the left severed pedicle, to which it attached itself, and in which locality it can now be felt.

In 28 days after the operation Mrs. LEACH was up and about her house, expressing herself as being "as well as ever."

The magnitude of the case with its successful termination, is such as to give us renewed confidence in the operation of ovariectomy.

I cannot close this report, without expressing my indebtedness to Drs. RICE and WAGENSELLER, for their valuable assistance during the operation, and to Dr. SMITH, for the able manner in which he conducted the after-treatment.

#### Retroversion of the Gravid Uterus; Reduction by Fluid Pressure; Recovery.

This case is related in the *Lancet*, and occurred at Kings Coll. Hospital, under charge of Dr. PLAYFAIR. The patient, æt. 42, mother of twelve children, four months pregnant, was suffering from

inability to retain the urine, which was constantly dribbling, intense backache, great pain in defecation, and inability to sit or lie comfortably. Examination, revealed the gravid uterus in a complete state of retroversion. Failing in the ordinary method by manual operation and posture to reduce the organ, a caoutchouc bag of sufficient size to fill the vagina, was introduced, and kept constantly filled with water, care being taken at the same time, to keep the bladder and bowels empty. After steady pressure had been kept up in this way for about twenty-four hours, the patient expressed herself much relieved, and, on examination, the uterus was found completely replaced. There has been no subsequent tendency to displacement.

## Medical Societies.

### BALTIMORE MEDICAL ASSOCIATION.

Meeting December 10th, 1866.

Reported by J. W. F. Bates, M. D.

#### SUBJECT FOR DISCUSSION:

#### "Cerebro-Spinal Meningitis."

Dr. DARE opened the discussion as follows:

As far as the cause and nature of this disease is concerned, I know but little. It seems to be a disease of the blood, from some poison acting on that fluid. There is a great tendency to inflammation of the brain and spinal cord. The most common phenomenon after death is fluidity of the blood. The lungs are hypostatically congested. In most cases there is effusion of serum in the brain and spinal cord; serum in the pericardium. I have seen six or eight cases of the disease. In the majority of instances, it attacks suddenly. I recollect the case of a man in the hospital. There seemed to be but little the matter with him during the day; at night he became comatose, and so restless that he had to be confined to the bed by sheets. On the following morning there were a number of ecchymosed spots, but they were attributed to the friction of the sheet, which was used to restrain him. On the second day it was found that he was partially paralyzed on the right side. He died in forty-eight hours after admission. Serum was found in both lateral ventricles, and a small quantity of puruloid matter.

In another case there was opisthotonos, and after death effusion was found in the spinal cord, which, at one point, was very much softened, and almost fluid.

A man was brought into the hospital, and for a number of weeks the diagnosis was very obscure; thought it might be a mild case of typhoid fever; thought him more lazy than sick. He died, and the brain was found covered with a purulent matter, as was also the spinal cord. There had been no marked paralysis, but incapacity for exertion.

As proving the contagious character of this disease—a cadet was taken sick, after having examined a number of these cases. At first it resembled a case of malarial fever—headache,

fever, etc.—but it developed itself as a case of cerebro-spinal meningitis, with a fatal result.

The prognosis is very grave. Two cases came under my notice, which recovered. In one, the spots resembled purpura hemorrhagica. The most striking characteristics of the disease, after death, are effusion of serum in the membranes of the brain, and fluidity of the blood. Death is usually the result, under any mode of treatment. Stimulants and tonics are usually prescribed. Opium has been recommended on theoretical grounds. A number of cases have lately occurred in this city, which resemble this disease.

Dr. WATERS. Did you observe thrombi in the brain?

Dr. DARE. I do not remember that I did. Dr. MCGILL observed the ventricles very carefully, and generally found puruloid matter on the floor of the fourth ventricle.

Dr. WATERS. In regard to the case of the cadet alluded to by Dr. DARE, Dr. MCSHERRY was his physician, but during the night his case became so critical, in the opinion of his friends, that they came for me. At that time he was suffering with severe head-symptoms. I do not know whether his head was so painful, or whether from having observed a number of cases in the dead-room, he was continually imploring us to do something to remove the fluid from his ventricles. His face was turgid, injected conjunctivæ, pulse bounding, bowels costive. I gave a purgative, which acted with apparent benefit. Met Dr. MCSHERRY in the morning, and we both thought that it resembled a case of typhoid fever. Next day petechiæ extended all over the body. The pulse was then very weak; we used stimulants and tonics, but he sank that night. I had two cases in the hospital of this disease. One had been shot in the knee-joint, and afterward had an attack of scarlatina. I was called to see him about two weeks after his recovery, and thought he was suffering from one of those attacks of wandering pains wounded men so frequently have. In a day or two petechiæ appeared. (Dr. NEFF saw the case with me.) There was extension of the head, mouth open, tongue tremulous, as also his arms, sphincters relaxed, restlessness. In a day or two his eyes glazed over, and remained half open. Finding that he had not slept for several nights, I ordered morph. sulph., gr.  $\frac{1}{2}$ , every two hours, until he slept. It was continued until 10 o'clock at night, when he went to sleep, and awoke much better. I then gave him stimulants, etc., but attributed his recovery to the free use of morphia. A patient in an adjoining bed had a very mild attack of the disease. The petechiæ were not so large nor deeply colored, but they were larger than the spots in typhoid. In cerebro-spinal meningitis the cerebro-spinal symptoms of typhus are not the most prominent. I think there are sufficient symptoms to distinguish it from typhus.

Dr. FAY. Did Dr. DARE make any microscopical examination of the brain and spinal cord?

Dr. DARE. I did not.

Dr. ARNOLD. It seems that all the cases of this disease related occurred in hospitals. I recollect some cases which came under my notice some few years ago, which, since I have read the history

of cerebro-spinal meningitis, appear to have been cases of this disease. I attended one in the eastern part of the city, in consultation, and we thought it a case of typhus. Troubled with wandering pains, and at first I thought I had a case of rheumatism. There was great prostration; a weak, feeble pulse, and petechiæ. It was taken worse, and had a tendency to bend the head backward; died that night. I attended another, in which there was no rheumatic pains nor opisthotonos. Progress rapid, and died in convulsions.

The term, cerebro-spinal meningitis, is not a very happy one, as it intimates that it is a pure inflammation, which it is not; it is zymotic. Which is the antecedent, the inflammation or the typhoid poison? Old authors describe typhus with cerebral, abdominal, and thoracic symptoms. This seems to be typhus, with cerebral complications. The petechiæ are characteristic of typhus. Its claim to a separate name is not entirely made out.

Dr. WATERS. In the cases I have mentioned, the rapid recovery attracted my attention; they got well at once. There was no fever running on for weeks, nor even days. Within forty-eight hours after the man had slept, he was entirely free from fever. In typhoid, I have seen hundreds of cases, and have tried to abort them, yet I have never seen it shortened a single day; it went on for the six weeks of its course, and then concluded. I suppose typhus progresses the same way. If one of these cases had been typhus, and had tended to a favorable issue, I would have expected that there would have been more or less fever for three or four weeks.

Dr. HARTMAN. A young lady, aged 16, on Saturday was in the full vigor of health. On the next morning she did not rise at the usual time; said she did not feel well; had some headache; could not describe her symptoms. Some magnesia was administered, but getting worse, I was sent for, and saw her that evening. All that I could get out of her was that she had headache. Had large blotches over her body; most plentiful on the thighs and abdomen. Complexion purplish; lips livid; pulse weak and flickering; pupils dilated; vomiting. Had several large, fluid and involuntary operations from the bowels. Gave her stimulants; carb. ammonia, brandy, etc. Died on the next morning. I did not know what else to call this case but cerebro-spinal meningitis, as it resembled the cases which occurred around Philadelphia.

Dr. WILLIAMS. What was the average time from the commencement of the indisposition to the appearance of the petechiæ?

Dr. DARE. About two days.

Dr. WILLIAMS. What was the average duration of the cases?

Dr. DARE. Six days, including one which lasted five or six weeks. In two cases that I saw, one, a boy, resembled the case related by Dr. HARTMAN; died in thirty-six hours. On post-mortem could not detect anything except venous congestion. In the other, there was venous congestion of the pia mater.



Dr. BATES. There has been considerable discussion concerning this disease; whether it is a new disease, or only a variety of typhus. I have prepared a table, exhibiting the prominent symptoms of each, which I will read.

#### CEREBRO-SPINAL MENINGITIS.

Ushered in with the usual symptoms of fever; chilliness; quick pulse; vomiting, etc.

More frequently the attack is sudden.

Bowels constipated. Respiration hurried, oftentimes difficult, and toward a fatal termination ster-torous.

Tongue sometimes moist and natural; more frequently dry, and covered with a whitish or dark-colored fur.

Pulse variable; usually more frequent than in health.

Petechiæ appear in from two to seven days.

The face or surface of the body may, instead of being covered by petechiæ, be of a uniform livid hue.

Delirium an almost constant symptom. Mostly of a mild character, but as the disease advances it gradually deepens into coma.

Pupils dilated; sometimes contracted, or unequal, or insensible to light.

Pain variable in position and intensity. Almost every case accompanied by headache, which is most frequently in the forehead. Back of the head, vertex, spine, limbs and joints also attacked.

Hyperæsthesia of the surface of the body.

Spasms usually of the tonic kind; opisthotonos; trismus, without any other tetanic symptom.

Deglutition not unfrequently difficult.

Excessive debility.

Most common from 15th to 21st year.

Prognosis unfavorable. —

Mortality 50 per cent.

Most deaths from 2d to 6th day.

Contagious.

#### Post mortem.

Brain. The most frequent lesions are, effusion of serum, lymph or pus, and a congested condition of the membranes, or substance of the brain.

Liver and spleen enlarged and congested.

Peyer's glands sometimes ulcerated; not unfrequently unduly prominent.

Blood unnaturally fluid, and dark-colored.

#### TYPHUS.

Same symptoms; rarely vomiting.

The attack may be quite sudden.

Bowels constipated. Respiration hurried, noisy and shallow.

Tongue moist, or white, or yellowish-white. Becomes dry and brown, as the disease advances.

Pulse frequent and weak.

Appear in from five to seven days.

Color of the face dusky, gradually deepens; sometimes of a dark-red, purplish or livid hue.

Stupor frequently replaced by delirium. Usually of a mild character; sometimes all the symptoms of cerebritis; coma.

In the last stages sometimes dilated; sometimes extremely contracted.

Pain in head, back and limbs. Headache most commonly over the brows.

#### Hyperæsthesia.

Spasmodic muscular movements, amounting almost to convulsions.

Deglutition frequently difficult.

Excessive debility.

Most common in middle or advanced life.

Prognosis variable, according to the violence of the epidemic. Mortality from 10 to 15 per cent.

Contagious.

Venous congestion, with some serous effusion in the ventricles, or beneath the arachnoid. Sometimes clear evidences of cerebritis.

Liver and spleen often healthy, though frequently softened; sometimes enlarged.

No disease in Peyer's glands, unless in a few cases, which it is fair to ascribe to complication with enteric fever.

Blood fluid, and dark; sometimes resembles molasses.

ease of the nervous centres. The greater apparent rate of mortality may be on account of the smaller number of cases, and the milder ones being called by some other name. The course of treatment goes to show that there is a reserved conviction that these cases are under the influence of the typhus poison. Any fever complicated with disease of the nervous centres would take a rapid course. There is the weight of evidence in favor of the opinion that this is a variety of the old typhus, or petechial fever.

## EDITORIAL DEPARTMENT.

### Periscope.

#### Pharmaceutical Jellies.

In an article on this subject, by Mr. W. H. LASTER, published in the *New Orleans Med. and Surg. Journal*, the following formulae are given. For gelatinizing cod-liver oil:

Take of gelatine . . .	10 drachms,
Boiling water, . . .	8 ounces,
Syrup, . . .	8 ounces,
Cod-liver oil, . . .	15 ounces,
Oil of lemon . . .	30 minims or q. s.

Dissolve the gelatine in the boiling water, add the syrup, and finally, incorporate the cod-liver oil, aromatized with the oil of lemon; then immediately place the vessel in cold water, and allow it to remain until the jelly solidifies. Should a portion of the oil separate, triturate the mass until it becomes uniform, and immerse the vessel in boiling water until the jelly becomes transparent. Castor oil and copaiba may be suspended, but with more difficulty, in a similar manner.

A second mode of gelatinizing the various oils, depends upon the fact that arabin forms with sea-quichloride of iron a gelatinous mass. The sea-quichloride of iron employed should contain no excess of acid, (what acid?) and should be in every instance, mixed with a portion of the oil, before incorporation with the emulsion, otherwise the mass will be granular or not of uniform consistence. Here follows a formula:

Take of gum arabic . . .	5 drachms.
Take of water . . .	3 drachms.
Take of syrup . . .	10 drachms.
Castor oil . . .	6 drachms.
Oil of lemon . . .	5 minims.
Tincture of chloride of iron . . .	50 minims.

Dissolve the gum arabic in the water, and emulsionize five drachms of the oil with the mixture. Add the syrup, place the emulsion in a porcelain capsule, and gently heat it, until it becomes fluid. Mix the tincture of iron with the remainder of the oil, and incorporate the mixture with the heated emulsion; lastly add the oil of lemon, place the capsule in ice-cold water, and stir until completely cold.

Dr. ARNOLD. The paper just read confirms my convictions that these two diseases are identical. Simple typhus is very rare in this country, and it may be that this is typhus, complicated with dis-

**A Case of Protracted Utero-Gestation**

is related by Dr. JOYNT in the *Dublin Quarterly*. The evidence in the case is positive that the minimum duration of pregnancy must have been 317 days, or about six weeks more than the average. Dr. J. in his remarks, quotes ELSÄSSER, who found in 160 cases of pregnancy, eleven protracted to periods varying from 300 to 318 days.

**Amputation at the Hip-Joint.—Statistics.**

In an article by Dr. BUTCHER, on amputation at the hip-joint, published in the last number of the *Dublin Quarterly Journal of Med. Science*, 29 cases are tabulated—18 from the London hospitals, and 11 which occurred at Philadelphia, tabulated by Dr. TH. MORTON.

Of these 29 cases, 16 recovered; of the 13 deaths, 5 were after operations for injuries of a grave nature, comprising all the cases of this nature in the table.

## Reviews and Book Notices.

**The Common Nature of Epidemics, and Their Relation to Climate and Civilization. Also, Remarks on Contagion and Quarantine, from Writings and Official Reports, by SOUTHWOOD SMITH, M.D., Physician to the London Fever Hospital, "The Father of Sanitary Reform," Member of the General Board of Health, 1848—1854, etc., etc. Edited by T. BAKER, Esq., Barrister at Law. Author of "The Laws Relating to Public Health, Medical, Protective," etc., etc. Philadelphia: J. B. Lippincott & Co. 1866. 12mo., pp. 130. Price, \$1.00.**

We quote from Mr. BAKER'S Introduction to this work, the following just eulogium of its author. "Never was a country guided through the perils of an epidemic with greater wisdom and energy than Great Britain during the cholera of 1848—9. The master spirit on that occasion was Dr. SOUTHWOOD SMITH. Long previous to that time, this great man had had a more extended experience of the nature, causes and treatment of zymotic diseases, than perhaps any physician before or since. He had made them his special study, and applied the great powers of his clear reasoning, and philosophic mind, to the discovery of their causes, and the best means of arresting their progress. Whilst holding the post of responsibility as the chief medical adviser of the nation in his capacity of medical member of the General Board of Health, Dr. SOUTHWOOD SMITH left behind him a set of official reports on the subjects of epidemics, contagion, and quarantine, which will never die. 'The reports drawn up by Dr. SOUTHWOOD SMITH,' writes Dean PEACOCK, 'on the proper precautions to be taken to meet the recent outbreaks of cholera, have been of the most essential service wherever their recommen-

dations have been followed. If Dr. S. SMITH, however, had no other claims on the lasting gratitude of the nation, I would refer to his reports on quarantine as quite sufficient to establish them. They have contributed more than any other publications on this subject, to dissipate the gross and mischievous delusions upon which these regulations are founded, and which are known to be so injurious to the free commercial intercourse and prosperity of nations.'"

The essay on "The Common Nature of Epidemics," occupying the first sixty pages of the volume before us, is a masterly production. Containing a great deal of historical and statistical information, it surpasses infinitely in clearness and comprehensiveness of reasoning, the book of Dr. ANSTIE on Epidemics, not long since noticed in this journal. We do not know any essay on the subject equal to it. The rest of the book consists of the matter of two reports of Dr. S. SMITH'S upon "Quarantine and Contagion." They also are admirable. Most of their space is occupied by a scrutinizing examination of the evidence in regard to the famous case of the "Eclair" steamship, and the epidemic of yellow fever at Boa Vista, in 1845, ascribed by Dr. McWILLIAM, to importation by that vessel. We commend those who suppose this case to have been an *experimentum crucis*, in proof of the contagiousness of yellow fever, to the careful reading of these pages.

Dr. SOUTHWOOD SMITH'S conclusion, deliberately reached, and most emphatically stated, is, that "facts and observations place beyond all reasonable doubt the utter inutility of the system of quarantine."

### Transactions of the Am. Medical Association. [SECOND NOTICE.]

Proposing to place before our readers a brief account of the contents of the XVth volume of the Transactions, (commenced in our last number,) we take up, next, the report of the Section on Surgery. It contains, first, a statement of the proceedings of the Section; which was presided over by Dr. A. C. POST of New York. Several new surgical instruments were exhibited, and a case was reported by Dr. J. C. HUGHES, of Iowa, in which the bilateral operation for vesical calculus, was four times performed on the same patient. Dr. POST'S description of his new instrument for performing lithotomy by a bilateral section of the prostate, as well as of one for the introduction of "insect pins" for sutures, appears at the end of the publications of the Surgical Section.

Dr. J. M. BOISSOR, of Philadelphia, contributes a page, giving account of a new apparatus for

treatment of fractured patella. A double inclined plane is used, keeping the limb slightly flexed. This is a more natural and easy position than the usual one of extension; and affords more purchase for traction upon the upper fragment of the patella.

The most elaborate paper presented in this section, is one by Major J. J. WOODWARD, M. D., Assistant-Surgeon, U. S. A., on the "Causes and Pathology of Pyæmia or Septæmia." This fills thirty-two pages. Dr. WOODWARD prefers the term *septæmia*, but defers to usage in adopting that of *pyæmia*. He gives, first, a terse account of the ordinary phenomena of the affection. Some readers, at least, will excuse our introduction of this in his own words.

"In wound-pyæmia generally, the first symptoms are malaise, with loss of appetite, restlessness at night, and pallor of the skin, sometimes verging on an icteroid condition. The patient frequently complains of a peculiar unpleasant taste in the mouth, which communicates itself to all articles of diet. After several days of this condition, rigors or chills make their appearance for the first time. Fever once established may present an intermittent or remittent form, but usually, in the course of a very few days, becomes continuous and typhoid in its character, with hot, dry skin, frequent, feeble pulse, mental disturbance soon amounting to low delirium or stupor, a red, dry tongue, which after a time becomes brown or coated with sordes, meteorism, diarrhoea, in short the symptoms of the fevers of the typhoid grade. Icterus, more or less pronounced, is a frequent accompanying phenomenon. These constitutional conditions, when dependent upon a visible local lesion, are accompanied by local phenomena of equal significance. If the point of departure be a wound, it will be found to have lost its healthy character, the formation of normal pus ceases, the lips of the wound become dry and livid, and often after amputations or gun-shot injuries, sloughing or phagedæna sets in. The superficial veins leading from the wound are swollen, hard and tender; occasionally abscesses form in their track. Sometimes an erysipelatous condition of the integument commences at the wound and spreads with great rapidity. In many of these cases brought under my notice, during the late war, the erysipelatous blush was modified by a yellowish or brownish tinge, intermixed with the deeper shades of red, and sloughing of the integument was not uncommon (erysipelas gangrenosa.) In the cases which occur after parturition the lochia become at first foetid, then nearly or quite suppressed, the vagina is hot and dry, the lower portion of the abdomen tender, and the phenomena of metritis or metro-peritonitis are usually present. The progress of the affection is often complicated with symptoms attributable to the secondary abscesses or foci, such as difficulty of breathing, more or less cough, pain in the side, dulness on percussion, with rude or bronchial respiration, if the lungs have become their seat; jaundice, and pain or tenderness in

the right hypochondrium, if the liver; swelling and tenderness in the articulation affected, in the case of abscesses in the joints, etc."

"The duration of the disease may vary from a few days to several weeks, and in either case it is very apt to prove fatal." Pp. 174, 175.

The morbid appearances in pyæmic cases are next described. *Phlebitis* is considered, giving the credit to GULLIVER of having first shown, that the "pus-like fluid" following coagulation in inflamed or obstructed veins is not pus, but softened and degenerated fibrin. In regard to the state of the blood in pyæmia, (so-called) the controversy as to originality, between VIRCHOW and BENNETT, is reviewed, deciding, with clear propriety, in favor of the claim of the Berlin pathologist to have first designated the true nature of leukæmia or leucocythæmia; leaving ichorrhæmia or septæmia to be separated from this by advanced investigation. Secondary abscesses following injuries have long been known and studied; but their mode of production was not understood, until VIRCHOW established the theory of *thrombosis* and *embolism*; one of the most interesting developments of modern pathology.

We do not propose to attempt to make an abstract of Dr. WOODWARD's essay; a few words of citation further must suffice us. His own observation goes to show, that "pyæmic phenomena have been invariably connected with local septic processes."

The term *osteo-myelitis*, he considers to have been often misapplied to *gangrene* of the marrow of bones after injuries or operations. *Puerperal pyæmia* is also treated of; as well as *phlegmasia dolens*, *pyæmia* of new-born children, and that connected with *ulceration of the bowels* or other morbid processes affecting abdominal organs. *Idiopathic* or *spontaneous* pyæmia, of ROKITANSKY and WUNDERLICH, Dr. WOODWARD believes to be really *leucocythæmia*.

The remaining papers in this Report of the Surgical Section of the Association will be noticed in another number.

— Not less than six vacancies have recently occurred in the Paris Faculty, namely, by death of Prof. GUILLON, (Clinical Medicine,) and the retirement of TROUSSEAU, (Materia Medica and Therapeutics). ANDRAL (Pathology); CRUVEILHIER (Path. Anatomy); PIARRY (Clin. Med.); JOBERT DE LANBALLE (Clin. Surgery.)

— PROFESSOR HUXLEY of London, is giving a course of lectures to working men at the Geological Museum in Jermyn St.; the subject being birds and reptiles. The fee for the course of six is sixpence. The lectures hitherto have been most fully attended.



## Medical and Surgical Reporter.

S. W. BUTLER, M.D., Editor and Proprietor.

PHILADELPHIA, FEBRUARY 23, 1867.

### ANOTHER DEATH FROM CHLOROFORM.

Another death from chloroform has occurred, and under circumstances which demonstrate most conclusively, that the administration of this anæsthetic will sometimes be followed by fatal results, in spite of all foresight, and the most energetic endeavors at resuscitation.

The case occurred in Bellevue Hospital, in a patient under charge of Prof. F. H. HAMILTON. The facts of the case are of so much interest, that we lay the essential points of the testimony, as given before the Coroner's inquest, *in extenso*, before our readers.

Prof. HAMILTON testified:

"Deceased was admitted to Bellevue Hospital on the first of January, 1867, having lost a large portion of her nose, said to have been bitten off by a negro in a brawl; upon consultation it was decided that an operation should be made; accordingly, on the 7th of January, in the presence of the class of Bellevue College, I had her completely placed under the influence of an anæsthetic, and made the operation by dissecting a portion of integument from the forehead and transferring it to the nose. No ill effects followed the use of the anæsthetic or the operation; the integument united speedily, and every circumstance promised a complete success. A few days later I constructed the columella nasi, and modelled more completely the tip of the nose, without using an anæsthetic; February 4th, one month from date of first operation, I proposed to complete the operative proceedings by separating the pedicle by which the new nose remained attached to the forehead, and returning it to the position from whence it had been removed; at 10 o'clock, A.M., the patient walked into the amphitheatre, accompanied by the female nurse, two house surgeons and myself, and was laid upon the operating table; her clothes were loose about her waist, and there was nothing about her neck; a blanket was thrown on her body and extremities, and I directed the house surgeons to give her first a little chloroform, and then the ether; it is my almost uniform practice, when ether can be obtained, to give it alone as an anæsthetic, reserving chloroform for a few exceptional cases, and then giving it only in a moderate quantity; this has been my practice and my teaching ever since the introduction of this latter agent, notwithstanding the opinion entertained by a large proportion of my professional brethren, that chloroform may be given with entire safety. In army field-practice chloroform, as is well known, has hitherto been used almost exclusively. My reason for deviating from my own usual practice in this case was that, owing to the wound on the forehead and nose, the cone containing the ether could not be made to cover the entire face, so as to exclude properly the atmospheric air, without exposing these raw and sensitive surfaces to its vapor; the cone, made of a napkin, folded diagonally, was six or eight inches in diameter at its open extremity, and being applied only over the mouth, she would contrive to inhale from air through the nostrils and through the open and expanded wings of

the cone. I believed that these circumstances would greatly delay, if not absolutely prevent anæsthesia from ether; I left the room for a moment, to look after some of the preparations of the operation, and returning, found the patient making a good deal of noise, talking and throwing her hands and feet about, as is usual when the ether has taken partial effect; one of the house surgeons was then holding the cone of ether over the mouth only—the chloroform, as I was informed, having been given previous to my return to the operating-room; the nostrils were open, and much the largest portion of ether was escaping from the sides of the open mouth of the cone, where also an abundance of fresh air was admitted; I directed no change in the mode of administration, but waited about five minutes, (probably 15 minutes from the time of commencement of exhibition of the anæsthetic), and then, observing that she was more quiet, but breathing naturally, I turned to the table of instruments, and selected my knife for the operation; turning again and approaching the patient, I observed that she had ceased to breathe; the house surgeon made the same discovery at the same moment; both the house surgeons were standing beside her, and had not left her for one moment since the administration of the anæsthetic was commenced; I immediately felt for her pulse at the wrist, but it had ceased; I did not stop to put my hand upon her heart, but turned her at once upon her left side, and then again upon her back; this was repeated three or four times, and occasionally forcible pressure was made upon the pit of the stomach, when at length she made one long inspiration, and I hoped the danger was passed. At this time her face was rather pale, but not purple or otherwise discolored; this process of turning and pressing upon the stomach was continued, and in a few minutes she breathed again; during upward, of perhaps eight or ten minutes, the long inspirations occurred at pretty long intervals; her tongue, in the meantime, and until after death, was held forward from the glottis by a pair of toothed forceps. At the end of the eight or ten minutes the inspirations became much shorter, and occurred at longer intervals; the poles of a galvanic battery which I had ordered, and which was promptly at hand, and in working order, were now applied to each side of the body, opposite the diaphragm and the heart. During this time alone, the attempts at artificial respiration by turning and pressure were suspended; observing no effects from the battery it was laid aside, and the manipulations were resumed; her lips were now purple; I opened the windpipe, and introduced well into the windpipe a large flexible catheter, and with my own breath inflated the lungs, aiding the respiratory movement by rotation and pressure; inflation of the lungs through the catheter was repeated several times at various periods of time from the beginning to the end of the efforts at resuscitation; the chest was struck violently over the heart, and over other portions with the palm of the hand; the windows were thrown freely open to admit air. At 10.40 I declared to the gentlemen present that the case no longer presented a possible ground of hope; she had probably ceased to breathe for at least ten minutes, but I directed the efforts at artificial respiration to be continued under my supervision, and they were not suspended until 11.10; alarming symptoms were first presented about 15 minutes after the inhalation commenced, and breathing ceased entirely within 15 minutes thereafter, but the efforts at resuscitation were continued more than half an hour after. Both the ether and the chloroform were manufactured by Dr. Squibs of Brooklyn. The only complaint made of either of these articles by the surgeons, who had used them in the hospital, was, so far as I am aware, that the ether did not take effect quickly. This I have repeatedly noticed when exhibiting it for the purpose of operating during the last year; I have administered chloroform

and ether very frequently, especially the latter, and seen chloroform exhibited some hundreds of times. I have never seen death directly caused by either, yet there are upon record more than a hundred cases of death by chloroform. I do not know that there are any recorded cases well authenticated of death from ether. I think the chloroform in this case was used with the ordinary precautions, yet I have no doubt that it was the cause of death.

Dr. DAVID M. COREY, one of the house surgeons at the hospital, corroborated the testimony of Dr. HAMILTON.

Dr. HENRY F. WALKER, Senior Assistant Surgeon at Bellevue Hospital, testified that he had given chloroform 12 or 15 times, and ether about six times, without any bad effect. He added: I administered the chloroform to deceased the second time, and with a great deal of care; I gave her about one drachm of the chloroform first, but the patient did not come under its influence. I then gave her ether for about two or three minutes, she did not come under the influence of that, and I was directed to replace it with chloroform. Dr. COREY poured about half an ounce of chloroform on a folded towel, and held it about two inches from her mouth; about the same amount was poured on the towel a second time, and she then came under the influence of it. The chloroform was then replaced by ether, and administered in the usual way; after the ether had been administered for one or two minutes the patient stopped breathing suddenly, and efforts at artificial respiration were resorted to to restore her, and continued for three-quarters of an hour; I was present at the post-mortem examination, and examined the organs after they had been removed, and saw no lesions sufficient to cause death; in my opinion death was the result of the inhalation of chloroform.

Upon this, and other testimony, which we omit, the jury rendered the following verdict:

"That the said Ann McGlennan came to her death by inhaling chloroform, while undergoing an operation for the purpose of forming a new nose, at Bellevue Hospital, Feb. 4, 1867; and that said operation was done at her own request. The jury further say, in view of the fact that chloroform is used by all the faculty of the United States for the purpose of performing operations, we consider that there is no blame to be attached to Dr. HAMILTON or any of his assistants.

#### CHOLERA PREVENTIVE.

A question of great and absorbing interest to medical men is how best to prevent the ravages of the cholera during the coming season. We are liable to have this relentless foe to our race thrust upon us at any moment by the arrival of a vessel from abroad at any of our many seaports, or by the fanning into a flame the slumbering seeds of the last epidemic, that may be lingering among us still. It becomes the duty, therefore, of all members of the medical profession to urge upon all with whom they have any influence, to use proper preventive measures without delay.

In the REPORTER of Jan. 12th, we noticed a new contrivance which is in process of manufacture by the Trenton Pottery Company, under the name of the "Patent Deodor Vessel," which seemed to us calculated to be of great service in the sick chamber, for the purpose of neutralizing foul and unhealthy emanations.

We are pleased to learn that that distinguished

body, the New York Academy of Medicine, have had their attention called to it, and with their well known disposition to encourage anything that has a tendency to prevent disease, appointed a special committee to report upon this vessel. This committee reported at a stated meeting of the Academy on the 6th inst. The following is the substance of their report:

"Your Committee believe it to be the duty of the Academy of Medicine to encourage by all means in its power the study and improvement of methods for the *prevention of disease*; while the *treatment* of all diseases, in each individual case, must be left to the judgment and skill of the attending physician.

"That your Committee have examined carefully the "Deodorizing Chamber-Pot," and recommend its use as a most effective means of preventing the spread of cholera and other zymotic diseases.

"That the invention consists of a hollow compartment in the lid or cover, for the reception of a suitable deodorizing compound, with an opening in the top for the emission of the neutralizing gas, thus bringing the antidote in immediate contact with the poison.

"That the invention is patented, and that the formula of an excellent disinfecting compound will accompany each vessel.

"That both the vessel and the compound are recommended to be used in all sleeping apartments and other places where chamber-pots are used."

The report was unanimously adopted.

It is a matter of congratulation to physicians, nurses, and all who are obliged to visit sick chambers, that a means of purifying the atmosphere of these rooms, so convenient and effective, has been discovered. As a mere matter of comfort, this vessel will be gladly welcomed into every well regulated dwelling. As a means of preventing the spread of terrible diseases, it becomes of incalculable value. It is believed by eminent sanitarians, that carrying chamber-vessels—which emit foul odors and poison the air—from the chamber of a patient to empty, is one of the most prolific sources of the spread of cholera.

With the "deodorizing cover" emitting the counteracting gas immediately over the vessel, and between the contents of the pot and the nose of the person handling it, there is no danger incurred by the one whose duty requires him or her to take hold of and remove the pot. It is so simple that it cannot get out of repair, and must soon become introduced into general use.

We feel so deeply interested in the public welfare, and in the comfort of families in this city and elsewhere, that we advise the introduction of these vessels to general and common use. The members of the medical profession will readily see the benefit and comfort to be derived from the universal use of these pestilence-preventers.

#### ADVERTISING DOCTORS at a DISCOUNT.

At a late meeting of the College of Physicians of Great Britain, information was received of the advertising vagaries of a licentiate of the College of Physicians, practising in New Zealand. Measures were at once adopted to have his name erased from the roll of the College after due trial.

The notorious consumption-advertising HUNTER, after having "played himself out" in the U. States, went to London and there resumed his advertising tricks. The *Pall Mall Gazette*, one of the few honest journals of the day, came out in a strong article against this charlatan, stamping him as an imposter. Hunter invoked the law for libel, and after due trial, he was awarded damages to the extent of *one farthing*. This of course was a virtual triumph for the *Gazette*. In its defence, it advocated the principles of ethics by which the medical profession is guided, and these were emphatically and decisively endorsed by Lord Chief Justice Cockburn.

During the trial, HUNTER's counsel claimed, that such forms of advertisement and practices as he employed, were accordant with the American standard of professional ethics. This imputation was rejected by Chief Justice Cockburn, and in further exposition of the lie, the *British Medical Journal* quotes in extenso, paragraphs, 1, 2, 3, 4, of Art. I. (*Duties for the Support of Professional Character*) of the code of ethics of the American Medical Association. We thank the *Brit. Med. Journ.*, for having thus defended the honor of the profession in the United States.

But, when we see the profession in this country assailed by quacks in other countries, and manfully defended by a Chief Justice, and by a representative Journal of Medical Science in England, is it not our solemn duty to see to it that our own members are not allowed to demean the profession here?

Paragraph 3, article I, of the code says: "It is derogatory to the dignity of the profession to . . . publish cases and operations in the daily prints, or to suffer such publication to be made, . . . etc., etc. These are the ordinary practices of empirics and are highly reprehensible in a regular physician."

We have but lately exposed an instance of such "reprehensible empirical practice." This mode of advertising by "local items," stating "accidents," "big operations," etc., in connection with the doctor's name in our daily papers, is unfortunately too common to be overlooked. We shall, hereafter, keep a sharp lookout for these offenders against professional honor, and we ask our friends to send us copies of newspapers in which such "puffs" occur. We have a certain degree of admiration for the bold quackery of a Hunter, who does *not* claim to be within the pale of regular medicine, but a feeling of disgusting contempt overcomes us, when we see those who claim to be within this pale, guilty of "sneak-thiefism." There is more honor in the bold highway robber, than in the "gentlemanly" and "professional" pickpocket.

## Notes and Comments.

### Our Correspondence.

We have had little enough time of late to give the necessary attention to our correspondence, and have been compelled to neglect it somewhat; but we have just had occasion to look over the letters received for the week ending February 9th—a moderate week—and find that we had communications during that week from *thirty* States and Territories of the Union, and from Ireland and the Sandwich Islands. A glance weekly at our list of "communications received," on second page of cover, will give some idea of the extent of our circulation.

### The Daily Pocket Record.

We have been agreeably surprised and exceedingly flattered at the reception the Physician's Daily Pocket Record has met with from the profession. The present indications are that a new edition will be called for very soon. The list of new remedies, the classified priced list of medicines, the fee bills, the arrangements for keeping accounts, and other features have proved acceptable. Let it be borne in mind, that the pages devoted to the purposes of a visiting list are so arranged that the records can begin at any season of the year, and not merely with January. We hope our readers will aid us in perfecting the work, by making suggestions toward that end. They will be thankfully received, and so far as practicable adopted.

The *Buffalo Medical Journal* says of the Record, it is "the most admirably planned, beautifully bound Pocket Record which has yet made its appearance."



### The New Philosophy of Force.

Dr. McELROY, of Zanesville, Ohio, treats us in this and the preceding numbers of the *REPORTER* to an elegant essay on the very interesting and important subject of the philosophy of force. The bearing of this topic on the every-day practical duties of the medical man may not now be very apparent, but it is only because we have not yet gathered enough "pebbles from the shores of the great ocean of truth" to fully understand the relation between true philosophy and the practice of the healing art.

We commend this paper to the serious attention of our readers, and trust that it will have the effect of impressing on their minds the importance and necessity of elevating the standard of education of the candidates for the doctorate. That title should not be degraded, as it too often is, by being conferred on the ignorant and presumptuous.

### Transactions of the American Medical Association.

Those desiring to possess this volume, which contains many valuable and interesting articles, can do so by enclosing \$5, with 50 cts. for postage, to the Treasurer, Dr. CASPAR WISTER, 1303 Arch street, Philadelphia.

### Library of the late Dr. David Hosack.

We would call the attention of our readers to the sale in New York, on the 4th, 5th, and 6th of March, of the valuable library of the late Dr. Hosack. Many of our readers will be glad to possess mementoes of that great and good man.

## Correspondence.

### DOMESTIC.

#### On Diphtheria.

EDITOR MEDICAL AND SURGICAL REPORTER:

In your issue of Jan. 5th, is published a discussion upon the subject of diphtheria by the Baltimore Medical Association. I have perused that discussion with much interest. Perhaps diphtheria is more malignant in Baltimore than it is in the country. Certainly, it is not so fatal here as Dr. ARNOLD reports it to be with him. Bad cases do get well here, at least some of them, while others prove fatal. I think that extreme cases have got well. I will relate one:

A boy, aged six years, was attacked with diphtheria, the membrane well formed. He was treated by Dr. CRANDALL with the tonic and

stimulant treatment. In a few days he got better, and was dismissed. A few days afterward the boy was taken worse, the tonsils became covered with the pseudo membrane, which progressed into the trachea and bronchial tubes. The little fellow's life was despaired of by his parents. A particular rattle and whistling sound in the bronchial tubes induced the Doctor to believe that the membrane had become detached, and he proposed giving an emetic to dislodge it; but it was objected to by the parents as being a useless torture. Counsel was called, and resulted in giving the emetic. On the first effort to vomit, the membrane was thrown out entire, the whole length of the trachea and bronchial tubes. It can be seen at any time at Dr. CRANDALL'S office, with other specimens of the same kind. The boy got well.

I do not wish to criticise Dr. ARNOLD'S remarks, although my experience differs widely from his. Allow me to relate one or two more cases in my own practice, to prove that the tonic and stimulant treatment will cure bad cases:

I was called to visit two boys, aged eight and ten years, that were laboring under diphtheria. Dr. HARTSHORNE being in the place, I invited him to go with me, and we examined them. He called them hard cases, and remarked that he never saw such a case get well. The boys were put upon the tonic and stimulant treatment. The cases appeared to be very similar. In about four days the membrane disappeared, being coughed up and spit out in patches. One of the boys then utterly refused to take any more medicine, and finally died. The other kept up the treatment and got well. I never saw two cases nearer alike.

One case more, to show the effects of stimulants:

I was called to see a young lady, aged fifteen years, who had been laboring under diphtheria one week. Had no treatment except herb teas prepared by her mother. She could not speak a word, her throat being filled with membrane, the tonsils covered and swollen so that they touched each other. I left her strong tonics to be given once in four hours, and a solution of chlorate of potassa once in four hours, alternating. Told her mother to get a quart of whisky, and get all down that she could. I was asked to see her again the next day. I told them it would be of no use. The girl, I thought, would not live thirty-six hours. They gave the medicine regularly until it was all taken, and sent me word that they thought her better, and wished me to see her again, which I could not do, but sent



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